



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,984	09/23/2005	Didier Roziere	0501-1127	6990

466 7590 04/04/2006

YOUNG & THOMPSON  
745 SOUTH 23RD STREET  
2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER

ZHU, JOHN X

ART UNIT PAPER NUMBER

2858

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/526,984

Applicant(s)

ROZIERE, DIDIER

Examiner

John Zhu

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-18,20-30 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/7/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "Ei,j" has been used to designate both supporting bracket in Fig. 1 and electrodes in Fig. 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because 1B in Fig. 1 is pointed to the electrodes and not to second proximity emitter as disclosed in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary,

the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of shields as disclosed in claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reference capacitance of claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

5. Claims 10, 14, 17 and 20 are objected to because of the following informalities: please clarify what the term "*it*" refers to on line 2 of claims 10 and 14, line 8 of claim 17, and line 5 of claim 20. Appropriate correction is required.

6. Claim 5 recites the limitation "the shield" in line 4. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 8 is objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, no indication or support is given for how to check the calibration, or to recalibration the electronic means.

8. Claims 17-19 are objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, the language is written in an incomprehensible way that the examiner is unable to determine the structural components or makeup of the apparatus. One out of many questions the examiner wishes to dissect is... *What is the difference between the x-ray detector and the so called x-ray antenna and antenna disclosed in claim 1?*

Claims 18 and 19 are objected to as their base claims are objected for the above reasons.

9. Claim 19 recites the limitation "the linking tracks" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, the examiner is unsure the recited limitations of *Application of a proximity detector...* fall under apparatus or method of using category.

For the purpose of examination, the examiner will take claims 21-30 as apparatus claims.

***Claim Rejections - 35 USC § 101***

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. More specifically, the examiner is unsure the

recited limitations of *Application of a proximity detector...* fall under which of the four statutory categories.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 4, 11, 21, 24, 25, 26, 27, 28, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg (5,315,884) in view of Roziere et al. (FR 2,750,648).

With respect to claim 1, Kronberg discloses a capacitive proximity sensor comprising at least one detection antenna (Fig. 2, plate array 30) comprising a plurality of capacitive proximity sensors each with a measurement electrode (plates 32, 34 and 36), electronic means (Fig. 4c, circuit module 52) for exciting the electrodes and processing signals from the electrodes, and digital means (computer or process controller, column 5, lines 38-41) for controlling and processing proximity measurements.

Kronberg does not disclose the electronic means comprise for each detection antenna, a floating capacitive bridge cooperating with polling means to measure sequentially the respective capacitances between each electrode of antenna and the object or body to be measured.

Roziere discloses a floating capacitive bridge (Applicant's spec, page 11, lines 14-23) with polling means (Fig. 6, MUX) that sequentially take the input from the electrodes to be processed.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the floating capacitive bridge with polling means as taught by Roziere into the system of Kronberg for the purpose of accurately determining the proximity via capacitance of an object from multiple sensors.

With respect to claim 4, it is noted that features of an apparatus must be recited either structurally or functionally, and claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since claim 4 recites functional language of measuring, the structure is identical to the structure of claim 1, which is rejected in view of Kronberg and Roziere.

With respect to claim 11, Kronberg further discloses delivering proximity detection threshold signals (Column 7, lines 25-30) used to measure the distance between the sensor and an object.

With respect to claims 21, 24, 25, 27, 28, 29 and 30, it is noted that features of an apparatus must be recited either structurally or functionally, and claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since claims 21, 24, 25, 26, 27, 28, 29 and 30 all recite functional language

(i.e. for controlling, for checking, etc.), the structure is identical to the structure of claim 1, rejected in view of Kronberg and Roziere.

With respect to claim 26, although Kronberg and Roziere do not explicitly disclose one or more proximity detectors are installed in an equipment, it is ruled by the Courts that a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *See In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate more than one proximity detector installed in an equipment for the purpose of accurately determining the presence of a test object.

15. Claims 2, 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Vranish (5,373,245).

With respect to claims 2 and 9, Kronberg and Roziere do not explicitly disclose a single shield for all the measurement electrodes of the antenna arranged to modify the field lines of the electrodes.

Vranish discloses a single shield (Fig. 4c, shield 2) for all the measurement electrodes (sensing elements 12) arranged to modify the field lines of the electrodes.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the single shield as taught by Vranish into

the system of Kronberg and Roziere for the purpose of insulating the sensing elements for interfering signals.

With respect to claim 3, although Vranish, Kronberg and Roziere do not explicitly disclose a plurality of shields each provided for a part of the assembly of measurement electrodes, it is ruled by the Courts that a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *See In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)*. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide multiple shields into the system of Vranish, Kronberg and Roziere for the purpose of better shielding electrodes from all angles.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Coveley (5,952,835).

With respect to claim 7, Kronberg and Roziere do not explicitly disclose delivering an alarm signal indicating an inconsistent measurement.

Coveley discloses setting off an alarm when a measurement is deemed to be inconsistent (outside a predetermined threshold, column 4, lines 60-64).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the alarm condition as taught by Coveley into the system of Kronberg and Roziere for the purpose of indicating that an object is removed from the sensing plate (Column 4, lines 60-61).

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Stanley et al. (6,703,845 B2).

With respect to claim 8, Kronberg and Roziere do not explicitly disclose reference capacitances provided to check the calibration.

Stanley discloses reference capacitances (Column 10, lines 27-28) for checking the calibration of the measuring system.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the reference capacitances as taught by Stanley into the system of Kronberg and Roziere for the purpose of allowing the system of continuously compensate for variations in the measurement circuit (Column 10, lines 27-29).

18. Claims 10, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Lane (5,623,552).

With respect to claims 10 and 14, Kronberg and Roziere do not explicitly disclose the proximity detector is arranged on the outside surface of a box and comprises a plurality of measurement areas equipped with detection antennas. Kronberg and Roziere also do not disclose edge antennas arranged in part over one face of cap and in part over another contiguous face.

Lane discloses a proximity sensor with multiple areas of proximity detectors (Fig. 4, detectors 140) arranged on the outside of a box in which edge antennas are arranged in part over one face of cap and in part over another face.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the box structure and edge antennas as taught by Lane into the system of Kronberg and Roziere for the purpose of detecting a the presence of a fingerprint.

With respect to claim 12, Kronberg further discloses the sensor delivering analog signals of distance measurement between the sensor and the objects detected (Column 6, lines 36-38).

19. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Lind (6,225,939 B1).

With respect to claim 15, Kronberg and Roziere do not explicitly disclose at least one of the antennas is produced using a flexible circuit.

Lind discloses an impedance sheet which could be used for proximity measurement comprising a flexible dielectric material (Fig. 1, dielectric 20) in between conductors (impedance elements 22).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the flexible sheet as taught by Lind into the

system of Kronberg and Roziere for the purpose of reliability and endurance as a strong flexible material would not be as easily subjected to breaks and fissures.

20. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of McDonnell et al. (6,348,862 B1).

With respect to claim 16, Kronberg and Roziere disclose all aspects of the claim except for at least one of the antennas is connected to the electronic means by flexible connecting means.

McDonnell discloses flexible connecting means (Fig. 3, cable 58) is used to connect the antenna to the electronic means (Fig. 1, sensor circuit).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the flexible connecting means as taught by McDonnell into the system of Kronberg and Roziere for the purpose of providing a reliable medium for connecting the antenna and the electronics.

21. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Habraken et al. (5,883,935).

With respect to claims 17 and 18, Kronberg and Roziere do not explicitly disclose the proximity sensor used in an x-ray machine with a proximity detector arranged on the

inside or outside of a cap, with an x-ray antenna comprises a piercing provided for the passage of the x-ray beam.

Habraken discloses a proximity detector with an x-ray machine with detectors formed on the cap (Fig. 1, detector 6) with an x-ray emitter (4) providing an x-ray beam through the piercing (Fig. 2a, circular passage).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the x-ray machine with piercing and proximity detector as taught by Habraken into the system of Kronberg and Roziere for the purpose of detecting an object when performing a radiological test.

22. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Travanty et al. (4,987,583).

With respect to claim 20, Kronberg and Roziere do not explicitly disclose a proximity detector arranged on the inside or outside surface of an x-ray emitter device.

Travanty discloses proximity sensors (Fig. 1, pressure sensors 46, 49) on an x-ray emitter device (X-ray source 14).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the proximity sensors as taught by Travanty into the system of Kronberg and Roziere for the purpose of detecting a collision between a component and a patient under test in a x-ray apparatus (Abstract, lines 1-4).

23. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kronberg and Roziere as applied to claim 1 above, and further in view of Abbe et al. (3,990,005).

With respect to claims 22 and 23, Kronberg and Roziere disclose aspects of the claim except for a calculation of the thickness of object from distance measurements.

Abbe discloses a system for measuring the thickness of an object (Title) using capacitance distance measurements (Abstract, lines 1-2).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the thickness measurement system of Abbe into the system of Kronberg and Roziere for the purpose of detecting the thickness of an object under test.

#### ***Allowable Subject Matter***

24. Claims 5, 6 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

25. The following is a statement of reasons for the indication of allowable subject matter: claim 5 is allowable over the art of record because the prior art does not teach or suggest a detection antenna comprises a test track which in normal operation, is at the potential of a shield and in test mode, is earthed.

Claim 6 is allowable as its base claim of 5 is allowable.

Claim 19 is allowable over the art of record because the prior art does not teach or suggest an x-ray antenna comprising a copper layer being removed over an area which corresponds to the passage of the X-ray beam and in which the linking tracks and the capacitive electrodes are produced from the chromium layer.

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Basir et al. (6,693,440 B2) discloses an occupant proximity sensor with sequential testing of the electrodes. Klotz, Jr. et al. (5,651,044) discloses a capacitive proximity detector for radiation imager position control. Vranish (5,726,581) discloses a 3-D capaciflector used for proximity detection of an intruding object. Habraken et al. (6,408,051 B2) discloses a radiation equipment with proximity detection utilizing an additional electrode. Crawford (US PG Pub no. 2002/0122006 A1) discloses a box antenna with detection pads in several directions. Johnson et al. (6,661,240 B1) discloses capacitive motion sensing and position control on a radiation equipment.

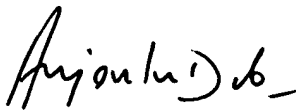
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Zhu whose telephone number is (571) 272-5920. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Zhu  
Examiner  
Art Unit 2858

JZ

  
ANJAN DEB  
PRIMARY EXAMINER

